

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau

## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification 7 :</b> C12N 15/12, 5/10, 1/21, C07K 14/705, 14/72, 16/28, A61K 38/17, C12Q 1/68		<b>A2</b>	<b>(11) International Publication Number:</b> <b>WO 00/20590</b>
			<b>(43) International Publication Date:</b> 13 April 2000 (13.04.00)
<b>(21) International Application Number:</b> PCT/US99/23317		<b>Henry [US/US];</b> 826 Lois Avenue, Sunnyvale, CA 94087 (US). LAL, Preeti [IN/US]; 2382 Lass Drive, Santa Clara, CA 95054 (US). BANDMAN, Olga [US/US]; 366 Anna Avenue, Mountain View, CA 94043 (US). AU-YOUNG, Janice [US/US]; 1419 Kains Avenue, Berkeley, CA 94702 (US). REDDY, Roopa [IN/US]; 1233 W. McKinley Drive, Sunnyvale, CA 94086 (US). CORLEY, Neil, C. [US/US]; 1240 Dale Avenue #30, Mountain View, CA 94040 (US). GUEGLER, Karl, J. [CH/US]; 1048 Oakland Avenue, Menlo Park, CA 94025 (US). GORGONE, Gina, A. [US/US]; 1253 Pinecrest Drive, Boulder Creek, CA 95006 (US). BAUGHN, Mariah, R. [US/US]; 14244 Santiago Road, San Leandro, CA 94577 (US). AZIMZAI, Yalda [US/US]; 2045 Rock Springs Drive, Hayward, CA 94545 (US).	
<b>(22) International Filing Date:</b> 6 October 1999 (06.10.99)			
<b>(30) Priority Data:</b> 09/167,219 6 October 1998 (06.10.98) US 60/172,211 6 October 1998 (06.10.98) US 60/133,585 11 May 1999 (11.05.99) US			
<b>(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Applications</b> US 09/167,219 (CIP) Filed on 6 October 1998 (06.10.98) US 60/172,211 (CIP) Filed on 6 October 1998 (06.10.98) US 60/133,585 (CIP) Filed on 11 May 1999 (11.05.99)		<b>(74) Agents:</b> BILLINGS, Lucy, J. et al.; Incyte Pharmaceuticals, Inc., 3174 Porter Drive, Palo Alto, CA 94304 (US).	
<b>(71) Applicant (for all designated States except US):</b> INCYTE PHARMACEUTICALS, INC. [US/US]; 3174 Porter Drive, Palo Alto, CA 94304 (US).		<b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
<b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> TANG, Y., Tom [CN/US]; 4230 Ranwick Court, San Jose, CA 95118 (US). YUE,		<b>Published</b> Without international search report and to be republished upon receipt of that report.	

**(54) Title:** G-PROTEIN COUPLED RECEPTOR PROTEINS

```
1  [M]-----[TPQSLQLQTTLFLLSL]---[LFLV] 2763296
1  [M]-----[TPQSLQLQTTLFLLSL]---[LFLV] 1595762
1  [M]VPSVRQCCHVGR[T]EEV[L]LTFKIF[L]V I I C L H V V [L]V GI 2117161

21 [QGAHGRGRHREDFR]-----[FCSQRNQTHRSS] 2763296
21 [QGAHGRGRHREDFR]-----[FCSQRNQTHRSS] 1595762
36 T S L E E D T D N S S L S P P P A K L S V V S [F]A P S S [N]E V E T T [S] GI 2117161

46 [LHY]----- 2763296
46 [LHYKPTPDLRISIENSEEALTVHAPPPAHPASR] 1595762
71 [L]N-DV[T]LS[L]LP[S]N[E]TEKTKI[T]I V K T [F]N[A]S G V K P Q R GI 2117161

49 ----- 2763296
80 -----[SFPDPRGLYHF]---[CLYWNRH] 1595762
105 N I C N L S S I C N D S A [F]F R G E I M F Q Y D K E S T V P Q [N]Q [H]I GI 2117161

49 ----- 2763296
98 -----[AGRLHLLYGKR D]-----[FLL] 1595762
140 T N G T L T [G]V [L]S [L]S E L [K]R S E L N K T L Q T L S E T Y [F]I M C A GI 2117161

49 ----- 2763296
113 -----[S D K A S S L L C]----- 1595762
175 T A E A Q [S]T [L]N [C] T F T I K L N N T M N A C A A I A A L E R V K I R GI 2117161
```

**(57) Abstract**

The invention provides human G-protein coupled receptor proteins (GCRP) and polynucleotides which identify and encode GCRP. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for diagnosing, treating, or preventing disorders associated with expression of GCRP.

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece			TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	NZ	New Zealand		
CM	Cameroon			PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		